

ESD Formal Referral Response



Application Information	
Referral Officer	Lara Fiscalini
Officer	Gavin Ashley
Council Reference	PPE22/0103
Address	1-9 Doonside St, Richmond VIC 3121
Proposal	Victoria Gardens Expansion
Comments Sought	Click here to view the link to the Statutory Planning Referral memo: D22/122764

Council's ESD Officer provides the following information which is based on the information provided in the Statutory Planning referral request memo referenced above.

ESD comments were requested on the following:

- The SMP and WSUD reports submitted with the application

In assessing this application, the following documents were reviewed:

- Sustainability Management Plan prepared by Norma, Disney & Young (Rev 1.7 – 01.04.2022)
- Architectural Plans prepared by COX Architecture (Rev 2 – 28.03.2022)
- Stormwater and Sustainable Design Assessment prepared by Bonacci Group Pty. Ltd. (28.03.2022)
- Waste Management Plan prepared by WSP (Rev 6 – 07.04.2022)

Comments

The standard of the submitted ESD does not meet Council's Environmental Sustainable Design (ESD) standards.

Should a permit be issued, the following ESD commitments (1) and deficiencies (2) should be conditioned as part of a planning permit to ensure Council's ESD standards are fully met:

ESD commitment / deficiency	Condition and Reason
1	
2	
3	

Furthermore, it is recommended that all ESD commitments (1), deficiencies (2) and the outstanding information (3) are addressed in an updated SMP report and are clearly shown on Condition 1 drawings. ESD improvement opportunities (4) have been summarised as a recommendation to the applicant.

(1) Applicant ESD Commitments

- A formal Green Star 5-star certification under Design & As-Built v1.3. The project is formally registered with the GBCA (SMP, p. 2).
- A project-specific Climate Adaptation Plan will be developed for the project (SMP, p. 5)
- The project aims for an average of 7-stars NatHERS rating throughout, and cooling loads <30MJ/sqm (SMP, p. 8).
- Lighting power density is reduced by at least 10% below Green Star requirements (SMP, p. 9).
- The non-residential areas will achieve at least 10% improvement on NCC 2019 requirements (SMP, p. 9).
- 40 bicycle parks will be installed with accompanying end-of-trip facilities (showers, lockers, and change rooms) for the project's co-work & retail component, including 9 showers and 60 lockers (SMP, p. 10).
- 846 bicycle parks will be installed for the residential towers, and at least 26 electric vehicle charging facilities will be installed, comprising 5% of residential car spaces (SMP, p. 10).
- A 30kL rainwater collection system will be provided, collecting rainwater from rooftops and re-using for landscape irrigation, and toilets (SMP, p. 11).
- The Architect and Head Contractor will ensure that at least 6% of all civil, architectural, and structural products (by cost) meet transparency and sustainability requirements to achieve 2 points in the Sustainable Products Calculator (SMP, p. 12).
- A 90% demolition and construction target has been confirmed (SMP, p. 12).

(2) Application ESD Deficiencies

- The SMP concedes that a small number of upper floor apartments 'with large floor plans and exposed facades, may exceed the suggested NatHERS maximum cooling load of 30 MJ/sqm (SMP, p. 9).
 - Design considerations should be made to ensure cooling loads to not exceed 30MJ/sqm. While the *average* may be under this, the standard is there to ensure no individual occupants are exposed to excessive energy costs as our climate becomes hotter.
- Improve the external shading strategy for north and west facing glazing not underneath balcony areas, particularly upper levels (above level 3).
- Given the scale of the development, the approach to on-site renewable energy should be revised. There are significant opportunities to aggregate energy demand across the development.

(3) Outstanding Information

- Confirm provision of operable windows throughout and provide elevations or plans to support claim.
- Prior to construction, provide a preliminary JV3 report to support claim (given NatHERS pathway has been selected in GS).
- Confirm use of electric heat pumps for hot water throughout.
- Clarify reduction in peak energy demand as a result of building fabric.
- Revise commitment and wording around heating and cooling systems to be 'within one star of best available', and clarify HVAC proposed for commercial area
- Clarify ventilation strategy for the basement car parks.
- Clarify whether individual tenancies and dwellings will be metered.
- Provide MUSIC modelling (as indicated in the SMP) within a revised Stormwater Report to support claim.
- Include details within revised Stormwater Report to support stormwater discharge claims.
- Include details of stormwater catchment areas within revised Stormwater Report to support stormwater diversion claims.
- Include details of required stormwater treatment within the revised Stormwater Report.
- Provide clear targets around portland cement reduction, noting that 30% is a recognised industry standard, with the inclusion of fly ash increasing durability
- Clarify misalignment between SMP which states 517 residential parks and plans that indicate 518.
- Provide a Green Travel Plan.
- Efforts should be made to organise private collection for residential organic collection prior to the City of Yarra's service.

(4) ESD Improvement Opportunities

- Consider extending all electric to the commercial component and showing industry leadership.
- Consider extending water reuse strategy to service commercial toilet flushing.
- Consider increasing size of tank to service more water needs within the commercial component of the development.
- Consider using materials and designing components to assist with disassembly and adaptive reuse (see Future Arena in Rio).
- Consider a partnership to locate a car-share pod within residential parking, or within broader parking scheme to provide alternatives to private vehicle ownership.

Recommendations

The applicant is required to address the items identified as ESD deficiencies or outstanding information, and consider the ESD improvement opportunities.

ESD Officer: ASHLEYG

Signature: Gavin Ashley

Date: 21.06.2022



Applicant Response Guidelines

Project Information:

Applicants should state the property address and the proposed development's use and extent. They should describe neighbouring buildings that impact on or may be impacted by the development. It is required to outline relevant areas, such as site permeability, water capture areas and gross floor area of different building uses. Applicants should describe the development's sustainable design approach and summarise the project's key ESD objectives.

Environmental Categories:

Each criterion is one of the 10 Key Sustainable Building Categories. The applicant is required to address each criterion and demonstrate how the design meets its objectives.

Objectives:

Within this section the general intent, the aims and the purposes of the category are explained.

Issues:

This section comprises a list of topics that might be relevant within the environmental category. As each application responds to different opportunities and constraints, it is not required to address all issues. The list is non-exhaustive and topics can be added to tailor to specific application needs.

Assessment Method Description:

Where applicable, the Applicant needs to explain what standards have been used to assess the applicable issues.

Benchmarks Description:

The applicant is required to briefly explain the benchmark applied as outlined within the chosen standard. A benchmark description is required for each environmental issue that has been identified as relevant.

How does the proposal comply with the benchmarks?

The applicant should show how the proposed design meets the benchmarks of the chosen standard through making references to the design brief, drawings, specifications, consultant reports or other evidence that proves compliance with the chosen benchmark.

ESD Matters on Architectural Drawings:

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site's permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.

Sustainable Management Plan (SMP)

for planning applications being considered by Yarra Council



ESD in the Planning Permit Application Process

Yarra City Council's planning permit application process includes Environmentally Sustainable Development (ESD) considerations. This is now supported by the ESD Local Policy Clause 22.17 of the Yarra Planning Scheme, entitled *Environmentally Sustainable Development*.

The Clause 22.17 requires all eligible applications to demonstrate best practice in ESD, supported by the Built Environment Sustainability Scorecard (BESS) web-based application tool, which is based on the Sustainable Design Assessment in the Planning Process (SDAPP) program.

As detailed in Clause 22.17, this application is a 'large' planning application as it meets the category Non-residential 1. 1,000m² or greater.

What is a Sustainable Management Plan (SMP)?

An SMP is a detailed sustainability assessment of a proposed design at the planning stage. An SMP demonstrates best practice in the 10 Key Sustainable Building Categories and;

- Provides a detailed assessment of the development. It may use relevant tools such as BESS and STORM or an alternative assessment approach to the satisfaction of the responsible authority; and
- Identifies achievable environmental performance outcomes having regard to the objectives of Clause 22.17 (as appropriate); and
- Demonstrates that the building has the design potential to achieve the relevant environmental performance outcomes, having regard to the site's opportunities and constraints; and
- Documents the means by which the performance outcomes can be achieved.

An SMP identifies beneficial, easy to implement, best practice initiatives. The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. Hence, greater rigour in investigation is justified. It may be necessary to engage a sustainability consultant to prepare an SMP.

Assessment Process:

The applicant's town planning drawings provide the basis for Council's ESD assessment. Through the provided drawings and the SMP, Council requires the applicant to demonstrate best practice.

1. Indoor Environment Quality (IEQ)

Objectives:

- to achieve a healthy indoor environment quality for the wellbeing of building occupants
- to provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices

Issues	Applicant's Design Responses	Council Comments	CAR*
Natural Ventilation and Night Purging	Operable windows to every bedroom and living area are mentioned in the preliminary NatHERS modelling (SMP, p. 16). The BADS assessment suggests compliance in terms of cross-ventilation (TP-58-81).	Confirm provision of operable windows throughout and provide elevations or plans to support claim.	3
Daylight & Solar Access	The GS pathway indicates that at least 40% of the nominated area will achieve high levels of daylight (SMP, p. 20), with modelling provided to suggest 80% of living areas to have DF>1.0 and 80% of bedrooms with a DF>0.5 (SMP, p. 22).	Satisfactory.	1
External Views	At least 60% of the nominated area has a clear line of sight to a high quality internal or external view (SMP, p. 20).	Satisfactory.	1
Hazardous Materials and VOC	At least 95% of all paints, adhesives, sealants, and carpets used in the building will meet the Total Volatile Organic Compound (TVOC) limits stipulated by the GBCA. 95% of engineered wood to meet formaldehyde limits specified by the GBCA (SMP, p. 7).	Satisfactory.	1
Thermal Comfort	Predicted Mean Vote (PMV) levels between -1 and +1 and 7-star NatHERS through building fabric, glazing and mixed mode ventilation (SMP, p. 8).	Satisfactory.	1

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4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:

SDAPP Fact Sheet: [1. Indoor Environment Quality](#)

Good Environmental Choice Australia Standards www.geca.org.au

Australian Green Procurement www.greenprocurement.org

Residential Flat Design Code www.planning.nsw.gov.au

Your Home www.yourhome.gov.au

2. Energy Efficiency

Objectives:

- to ensure the efficient use of energy
- to reduce total operating greenhouse emissions
- to reduce energy peak demand
- to minimize associated energy costs

Issues	Applicant's Design Responses	Council Comments	CAR*
NCC Energy Efficiency Requirements	The non-residential areas will achieve at least 10% improvement on NCC 2019 requirements	Prior to construction, provide a preliminary JV3 report to support claim (given NatHERS pathway has been selected in GS).	3
Thermal Performance	The project aims for an average of 7-stars NatHERS rating throughout the residential component (SMP, p. 8).	Satisfactory.	1
Greenhouse Gas Emissions	No specific reductions provided, however the SMP states that the project will be Net Zero Carbon Emission for all residential common area and back of house services through a combination of passive design strategies, high performance facades and services strategies, on-site renewable energy, purchase of off-site renewable energy and carbon offsetting (SMP, p. 2).	Satisfactory.	1
Hot Water System	No information has been provided in the SMP. The plans indicate heat pumps (TP-21-17).	Confirm use of electric heat pumps for hot water throughout.	3
Peak Energy Demand	No information has been provided.	Clarify reduction in peak energy demand as a result of building fabric.	3
Effective Shading	While the use of balconies provides shading throughout, there remains vast amounts of glazing in living rooms and bedrooms exposed, particularly on the north and west façade.	Improve the external shading strategy for north and west facing glazing not underneath balcony areas, particularly upper levels (above level 3).	2
Efficient HVAC system	The SMP states that air conditioning systems for cooling will have a minimum 3-star	Revise commitment and wording around heating and cooling systems to be 'within	3

	energy rating (SMP, p. 9). It is not clear what HVAC system is proposed for commercial areas.	one star of best available', and clarify HVAC proposed for commercial area.	
Car Park Ventilation	No information has been provided.	Clarify ventilation strategy for the basement car parks.	3
Efficient Lighting	Lighting power density is reduced by at least 10% below Green Star requirements in addition to automated light systems and energy efficient LEDs (SMP, p. 9).	Satisfactory.	1
Electricity Generation	No rooftop solar PV system proposed.	Given the scale of the development, the approach to on-site renewable energy should be revised. There are significant opportunities to aggregate energy demand across the development.	2
Other	All-electric building services for the residential component, eliminating the use of natural gas and other fossil fuels (SMP, p. 2).	Satisfactory. Consider extending all electric to the commercial component and showing industry leadership.	1 / 4

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References and useful information:

SDAPP Fact Sheet: [2. Energy Efficiency](#)

House Energy Rating www.makeyourhomegreen.vic.gov.au

Building Code Australia www.abcb.gov.au

Window Efficiency Rating Scheme (WERS) www.wers.net

Minimum Energy Performance Standards (MEPS) www.energyrating.gov.au

Energy Efficiency www.resourcesmart.vic.gov.au

3. Water Efficiency

Objectives:

- to ensure the efficient use of water
- to reduce total operating potable water use
- to encourage the collection and reuse of rainwater and stormwater
- to encourage the appropriate use of alternative water sources (e.g. grey water)
- to minimise associated water costs

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising Amenity Water Demand	Water efficient fixtures and fittings (SMP, p. 10): <ul style="list-style-type: none"> • 5 star WELS taps • 4 star WELS toilets, • 3 star WELS showers (maximum 7.5L/min), • 5 star WELS urinals, • 4 star WELS clothes washing machines, and • 5 star WELS dishwashers 	Satisfactory.	1
Water for Toilet Flushing	A 30kL rainwater collection system will be provided, collecting rainwater from rooftops and re-using for landscape irrigation, and toilets (SMP, p. 11).	Satisfactory. Consider extending strategy to service commercial toilet flushing.	1 / 4
Water Meter	The SMP states that metering will be included to monitor all major energy and water uses (>5% energy, >10% water) for the project, and all different functional spaces (different usage profiles) will be separately metered (SMP, p. 19).	Clarify whether individual tenancies and dwellings will be metered.	3
Landscape Irrigation	As above.	Satisfactory.	1
Other	The fire protection system will not expel water for testing (SMP, p. 11).	Satisfactory.	1

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References and useful information:

SDAPP Fact Sheet: [3. Water Efficiency](#)

Water Efficient Labelling Scheme (WELS) www.waterrating.gov.au

Water Services Association of Australia www.wsaa.asn.au

Water Tank Requirement www.makeyourhomegreen.vic.gov.au

Melbourne Water STORM calculator www.storm.melbournewater.com.au

Sustainable Landscaping www.ourwater.vic.gov.au

4. Stormwater Management

Objectives:

- to reduce the impact of stormwater runoff
- to improve the water quality of stormwater runoff
- to achieve best practice stormwater quality outcomes
- to incorporate Water Sensitive Urban Design principles

Issues	Applicant's Design Responses	Council Comments	CAR*
STORM Rating	No STORM or MUSIC modelling provided yet, however the GS pathway claims credit 26.2 for <i>Stormwater Pollution Targets</i> (SMP, p. 24).	Provide MUSIC modelling (as indicated in the SMP) within a revised Stormwater Report to support claim.	3
Discharge to sewer	GS credit 26.1 <i>Stormwater Peak Discharge</i> has been claimed, indicated that the post-development peak Average Recurrence Interval (ARI) event discharge from the site will not exceed the pre-development peak ARI event discharge.	Include details within revised Stormwater Report to support stormwater discharge claims.	3
Stormwater Diversion	No specific details provided.	Include details of stormwater catchment areas within revised Stormwater Report to support stormwater diversion claims.	3
Stormwater Detention	A 30-kL rainwater tank has been proposed.	Satisfactory. Consider increasing size to service more water needs within the commercial component of the development.	4
Stormwater Treatment	No specific details provided.	Include details of required stormwater treatment within the revised Stormwater Report.	3
Others			

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References and useful information:

SDAPP Fact Sheet: [4. Stormwater Management](#)

Melbourne Water STORM calculator www.storm.melbournewater.com.au

Water Sensitive Urban Design Principles www.melbournewater.com.au

Environmental Protection Authority Victoria www.epa.vic.gov.au

Water Services Association of Australia www.wsaa.asn.au

Sustainable Landscaping www.ourwater.vic.gov.au

5. Building Materials

Objectives:

- to minimise the environmental impact of materials used by encouraging the use of materials with a favourable lifecycle assessment

Issues	Applicant's Design Responses	Council Comments	CAR*
Reuse of Recycled Materials	The Architect and Head Contractor will ensure that at least 6% of all civil, architectural, and structural products (by cost) meet transparency and sustainability requirements to achieve 2 points in the Sustainable Products Calculator (including recycled materials) (SMP, p. 14).	Satisfactory.	1
Embodied Energy of Concrete and Steel	The SMP mentions that steel and portland cement content will be reduced, however does not specify a target (SMP, p. 14).	Provide clear targets around portland cement reduction, noting that 30% is a recognised industry standard, with the inclusion of fly ash increasing durability.	3
Sustainable Timber	At least 95% of all timber used in the building and construction works is reused or sourced from FSC or PEFC (SMP, p. 14).	Satisfactory.	1
Design for Disassembly	No information has been provided.	Consider using materials and designing components to assist with disassembly and adaptive reuse (see Future Arena in Rio).	4
PVC	At least 90% of all permanent formwork, pipes, flooring, blinds, and cables installed will be non-PVC alternative materials and have an Environmental Product Declaration (EPD) or will meet the GBCA's Best Practice Guidelines for PVC (SMP, p. 14).	Satisfactory.	1

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References and useful information:

SDAPP Fact Sheet: [5. Building Materials](#)

Building Materials, Technical Manuals www.yourhome.gov.au

Embodied Energy Technical Manual www.yourhome.gov.au

Good Environmental Choice Australia Standards www.geca.org.au

Forest Stewardship Council Certification Scheme www.fsc.org

Australian Green Procurement www.greenprocurement.org

6. Transport

Objectives:

- to minimise car dependency
- to ensure that the built environment is designed to promote the use of public transport, walking and cycling

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising the Provision of Car Parks	A reduction in the statutory car parking requirements will be provided for the residential element (518 spaces total for 839 apartments).	Clarify misalignment between SMP which states 517 residential parks and plans that indicate 518.	3
Bike Parking Spaces	846 bicycle parks will be installed for the residential towers, with 40 spaces provided for the commercial component (SMP, p. 10).	Satisfactory.	1
End of Trip Facilities	For the office component, EoT facilities are provided in the form of 9 showers and 60 lockers (SMP, p. 10 & TP-21-03).	Satisfactory.	1
Car Share Facilities	No information has been provided.	Consider a partnership to locate a car-share pod within residential parking, or within broader parking scheme to provide alternatives to private vehicle ownership.	4
Electric vehicle charging	At least 26 electric vehicle charging facilities will be installed, comprising 5% of residential car spaces (518 residential car spaces total) (SMP, p. 10).	Satisfactory.	1
Green Travel Plan	No Green Travel Plan provided at time of assessment.	Provide a Green Travel Plan.	3

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References and useful information:

SDAPP Fact Sheet: [6. Transport](#)

Off-setting Car Emissions Options www.greenfleet.com.au

Sustainable Transport www.transport.vic.gov.au/doi/internet/icy.nsf

Car share options www.yarracity.vic.gov.au/Parking-roads-and-transport/Transport-Services/Carsharing/

Bicycle Victoria www.bv.com.au

7. Waste Management

Objectives:

- to ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development
- to ensure long term reusability of building materials.
- to meet Councils' requirement that all multi-unit developments must provide a Waste Management Plan in accordance with the *Guide to Best Practice for Waste Management in Multi-unit Developments 2010*, published by Sustainability Victoria

Issues	Applicant's Design Responses	Council Comments	CAR*
Construction Waste Management	The SMP states that the Head Contractor will be required to ensure that at least 90% of construction and demolition waste (excluding hazardous waste) is diverted from landfill. This is likely to be fulfilled by engaging a commingled waste contractor who will perform offsite waste segregation (SMP, p. 12).	Satisfactory.	1
Operational Waste Management	An operational Waste Management Plan has been provided, with multiple residential and commercial waste rooms throughout.	Satisfactory.	1
Storage Spaces for Recycling and Green Waste	For the residential component; commingled recycling and e-waste/hard-waste provided with glass and organics listed as 'future provision'. For the commercial component; Commingled Recycling, Cardboard, Glass, Organics (via macerator), Waxed Cardboard, Polystyrene, Secure Paper, Soft Plastics, Cooking Oil, Hard Waste and E-waste (WMP, p. 11).	Efforts should be made to organise private collection for residential organic collection prior to the City of Yarra's service.	3

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References and useful information:

SDAPP Fact Sheet: [7. Waste Management](#)

Construction and Waste Management www.sustainability.vic.gov.au

Preparing a WMP www.epa.vic.gov.au

Waste and Recycling www.resourcesmart.vic.gov.au

Better Practice Guide for Waste Management in Multi-Unit Dwellings (2002)
www.environment.nsw.gov.au

Waste reduction in office buildings (2002) www.environment.nsw.gov.au

8. Urban Ecology

Objectives:

- to protect and enhance biodiversity
- to provide sustainable landscaping
- to protect and manage all remnant indigenous plant communities
- to encourage the planting of indigenous vegetation

Issues	Applicant's Design Responses	Council Comments	CAR*
On Site Topsoil Retention	The site is currently developed.	Satisfactory.	1
Maintaining / Enhancing Ecological Value	Approximately 3,535 sqm of publicly accessible open space of which 1,190 sqm of 6.55% is for green areas (Landscape Plan, p. 58), 6.14% of the site as deep soil zones (p. 59). In addition, 3,205 sqm (17.63%) for residential communal open spaces and 733 sqm (4.03%) for green roofs (p. 85).	Satisfactory.	1
Heat Island Effect	At least 75% of the site will comprise vegetation or roofing materials with a three-year Solar Reflectance Index (SRI)>64, hard-scaping elements with a three-year SRI>34 and/or areas shaded by vertical building elements at the summer solstice (SMP, p. 13).	Satisfactory.	1
Other	Cross sections and soil depths provided in the Landscape Plan.	Satisfactory.	1
Green wall, roofs, facades	Green roof provided as per summary above.	Satisfactory.	1

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References and useful information:

SDAPP Fact Sheet: [8. Urban Ecology](#)

Department of Sustainability and Environment www.dse.vic.gov.au

Australian Research Centre for Urban Ecology www.arcue.botany.unimelb.edu.au

Greening Australia www.greeningaustralia.org.au

Green Roof Technical Manual www.yourhome.gov.au

9. Innovation

Objective:

- to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings

Issues	Applicant's Design Responses	Council Comments	CAR*
Innovation Challenge – Financial Transparency	The project will disclose and comprehensively itemize design, construction, documentation, and project costs.	Satisfactory.	1
Innovation Challenge – Contractor Education	Training will be provided to contractors and subcontractors regarding core concepts of global warming, climate change and the health impacts of minimum building practices.	Satisfactory.	1
Innovation Challenge – High Performance Site Offices	The site offices will aim for high sustainability performance. These will achieve 75% of the High-Performance Site Office Checklist requirements.	Satisfactory.	1
Innovation – Global Sustainability	The following preapproved Innovation credits for 30E Global Sustainability will be sought: 30E BREEAM Design for Robustness, 30E Green Star Performance: Green Cleaning, 30E Green Star Performance: Procurement and Purchasing 30E Green Star Performance: Groundskeeping Practices	Satisfactory.	1

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References and useful information:

SDAPP Fact Sheet: [9. Innovation](#)

Green Building Council Australia www.gbca.org.au

Victorian Eco Innovation lab www.ecoinnovationlab.com

Business Victoria www.business.vic.gov.au

Environment Design Guide www.environmentdesignguide.com.au

10. Construction and Building Management

Objective:

- to encourage a holistic and integrated design and construction process and ongoing high performance

Issues	Applicant's Design Responses	Council Comments	CAR*
Building Tuning	Minimum 12 month building tuning will take place, from occupancy with quarterly measurement and adjustments (SMP, p. 18).	Satisfactory.	1
Building Users Guide	The contractor will be required to produce building user information in language that can be understood by all relevant stakeholders (SMP, p. 5).	Satisfactory.	1
Contractor has Valid ISO14001 Accreditation	The head contractor will have an ISO14001 certified Environmental Management System and be required to implement a project-specific Environmental Management Plan in place for construction, in line with best practice guidelines (SMP, p. 5).	Satisfactory.	1
Construction Management Plan	As above.	Satisfactory.	1
Others		Satisfactory	

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References and useful information:

SDAPP Fact Sheet: [10. Construction and Building Management](#)

ASHRAE and CIBSE Commissioning handbooks

International Organization for standardization – ISO14001 – Environmental Management Systems

Keeping Our Stormwater Clean – A Builder's Guide www.melbournewater.com.au



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How does the proposal comply with the benchmarks?

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ESD Matters on Architectural Drawings:

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